

MAT BLACK

Work Order ID 72022

Monday, July 18, 2011 8:48:45 AM



Page 1

Item ID: D205-634-041

Accept



Setup Start



Revision ID:

Item Name: Replacement Skidtube

Stop



Start Date: 7/18/2011 Start Qty: 1.00

Required Date: 8/10/2011 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2580-041

Rev.D DEO-D1

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 CHG004

N/A OK 11/08/12

110

0.00



CNC Bend 1

BENDING MACHINE - SKIDTUBES

Memo

0.00

CNC Delta 100 Bender

1-Bend as per program D2580.C on CNC Bender and Folio 16

2-Cut tubes as per Dwg. D2580

3- scribe batch# in aft end of tube

Handwritten signature/initials

11-7-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Accept Reject Reject Insp.  
Code Qty Qty Number Stamp

120

0.00



Skidtubes

Memo

0.00

Skidtubes

1- Deburr ends and remove bending marks

2- Prepare tube for swaging as per QSI 002

DL, 11/07/21.

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

1 8 BE 11/07/25

W/O:		WORK ORDER CHANGES					
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Reference:

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Approvals: Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

140

0.00



Skidtubes

Memo

0.00

1-Weld step D2576 as per Dwg. D2580 and QSI004  
A/R H H Aluminum Rod

M115778

BE 11/07/25

2-Grind welds on step as per Dwg D2580

3-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2 x 17G to start expansion and finish with 1/2 x 18G to achieve dwg dimension.

4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web. Deburr

6-Drill pilot holes for aft cap using DT 8215 Open holes to 0.208". Deburr

7-Drill pilot holes for Tow ring using DT8091, open to .640" and Deburr

WELDED  
AIR M115778 BE 11/07/25  
DH 11/07/26  
BE 11/07/27

150



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

M11.07.28 1 φ

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Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

160

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

170

Pressure Wash per QSI005 4.3

0.00



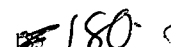
HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.



SprayPaint

Spray Painting

Memo

0.00

0.00

1-Prime B

as per QSI 005 4.2

2-Paint Matt Black Imron - DUP47-1640-0.8GL

B

per QSI 005 4.2

start: 2:15  
oven temp: 320 °F  
Finish: 2:45

M-1 X 11/08/02

M115128

W/O:		WORK ORDER CHANGES					
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Reference:

Approvals: Process Plan: Date:

QC: Date:

Tooling: Date:

SPC (Y/N): Date:

Run Start

Stop

Sequence ID/  
Work Center ID

195-190



QC

Quality Control

Operation

Description **QC3**

~~QC14~~ Inspect Spray Paint

Memo

Set Up/  
Run Hours

0.00

0.00

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

1 6 M 11/08/07

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

200

0.00



HandFinish

Hand Finishing

Memo

0.00

1-Install inserts &amp; wearplates &amp; Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates.

A/R Sikaflex-291

Sikaflex expire date:

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step &amp; Aft Cap with Sikaflex. Clean excess adhesive

A/R Sikaflex-291

Sikaflex expire date:

5-Wing Walk as per Dwg D2580 and QSI 005 4.4

Batch:

M118313

M116040

M116040

KQ m-f 11/08/03

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Cust Item ID:

Required Date: 8/10/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024

220

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD205-634-041

Location:

PPP Rev:

PPA72734

230

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Call 8/12 @

ck 11/08/12  
MF  
11-08-12

W/O:		WORK ORDER CHANGES					
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# Picklist Print

Monday, July 18, 2011 8:48:40 AM

Page 1

Work Order ID: 72022

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube



Start Date: 7/18/2011

Required Date: 8/10/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27: Added QC5 to Step 30  
KJ IPP Rev P 10.02.19  
per PAR09-043 EC verified by:DD  
IPP Rev: O 06.02.28 Added paperwork EC  
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q  
10.12.01 as per chg003 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4202-1 	D2579	Manufactured	No			140	Each	443.0000	20	20			BE 11/07/25 B 72199 *20
Spacer													

D2580-1



205 Skidtube bent detail

Location	Loc Qty	Loc Code
LG002	443	
66929	106	
67129	196	
67308	1	
67430	140	

Manufactured	No	110	Each	1.0000	1	1
--------------	----	-----	------	--------	---	---

D2576-3



Step (maching detail)

Location	Loc Qty	Loc Code
ST046	1	
70785	1	

Manufactured	No	140	Each	44.0000	1	1
--------------	----	-----	------	---------	---	---

Location	Loc Qty	Loc Code
LG	44	
66156	44	

① DD 11-7-20

BE 11/07/25

W/O:		WORK ORDER CHANGES					
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Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Page 2

D2855



Cap

Manufactured No

200

Each

41.0000

1

1

Start Date: 7/18/2011

Required Date: 8/10/2011

Start Qty: 1.00

Required Qty: 1.00

## Location

## Loc Qty

## Loc Code

FP007

41

53791

4

65519

2

65569

35

B720 75

IX

m-d 11/08/03

AN3-5A



Bolt

Purchased No

200

Each

1.055.000

2

2

## Location

## Loc Qty

## Loc Code

ST350

1055

115371

279

117423

776

AN960JD10L

NAS1149D0332J

Purchased

No

200

Each

0.0000

2

2



Washer

ALS7-1032-130

Purchased

No

200

Each

1,075.000

50

50



Insert

## Location

## Loc Qty

## Loc Code

ST282

1075

117717

1075

m 117087

2x m-d 11/08/03

2x

m-d 11/08/03

m 118386

50X

Monday, July 18, 2011 8:48:41 AM

Shop Packet Print

Page 2

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AN3C4A Purchased No 200 Each 1,580.000 50 50  
BOLT

Start Date: 7/18/2011

Required Date: 8/10/2011

Start Qty: 1.00

Required Qty: 1.00

Location Loc Qty Loc Code

ST350 1580  
117313 2  
117688 516  
117795 ✓ 500  
117872 22  
118012 500  
118112 40

m-L 11/08/03

AN960C10L NAS1149C0332 Purchased No 200 Each 0.0000 50 50  
R



washer

D3566-13



Gasket

Manufactured No

200 Each 21.0000 1

m 118306

m-L 11/08/03

SOX  
m-L 11/08/03

Location Loc Qty Loc Code

FP 20  
69281 ✓ 20  
FP014 1  
68341 1

D3566-5 Manufactured No 200 Each 20.0000 1 1



Gasket

IX  
m-L 11/08/03

Location Loc Qty Loc Code

FP015 20  
68961 ✓ 8  
71601 12

IX

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Parent Item Name: Replacement Skidtube


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15

D3566-1 Manufactured No 200 Each 32.0000 2 2 m-l 11/08/03  
  
 Gasket


Location	Loc Qty	Loc Code
FP011	30	
70769 ✓	18	
71580	12	
FP015	2	
68924	2	

2x

D3564-11 Manufactured No 200 Each 4.0000 1 1 m-l 11/08/03  
  
 Wearshoe


Location	Loc Qty	Loc Code
FP019	4	
67591 ✓	4	
	200	Each 22.0000

1x

D3564-13 Manufactured No 200 Each 22.0000 1 1 m-l 11/08/03  
  
 Wearshoe

Location	Loc Qty	Loc Code
FP016	11	
69280 ✓	11	
FP017	11	
71594	11	

1x

D3564-9 Manufactured No 200 Each 9.0000 1 1 m-l 11/08/03  
  
 Wearshoe

Location	Loc Qty	Loc Code
FP019	9	
67590 ✓	4	
69943 ✓	5	

1x

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D3564-5

Manufactured No

200 Each

19.0000

1

1



Wearshoe

Start Date: 7/18/2011

Required Date: 8/10/2011

Start Qty: 1.00

Required Qty: 1.00



m-l 11/08/03

## Location

## Loc Qty

## Loc Code

FG

2

34806

2

FP019

17

70864 ✓

17

D2594-3

Manufactured No

200 Each

780.0000

16

16



O-Ring, 205 Skidtube



m-l 11/08/03

## Location

## Loc Qty

## Loc Code

FP-A

780

65518 ✓

54

66952 ✓

726

D2594-1

Manufactured No

200 Each

233.0000

16

16



Plug, 205 Skidtube



m-l 11/08/03

## Location

## Loc Qty

## Loc Code

FP-A

233

42807

28

67441

7

68943

198

B 72063

16x

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Shop Packet Print

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DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS
A	96.09.16	NEW ISSUE	
B	96.12.02	AS MANUFACTURED	
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097	
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183	

**RELEASED**  
07.06.28 *[Signature]*

**DEO ATTACHED**

**UNDER REVIEW**

*[Signature]*

RMV *[Signature]*

QTY -041	QTY -045	Part Number	Description
X		D2580-041	SKIDTUBE ASSEMBLY
	X	D2580-045	SKIDTUBE ASSEMBLY
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED  
SUBJECT TO AMEND  
WITHOUT NOTICE  
WORK ORDER  
NO. *72022*

*11-07-18*

**GENERAL NOTES:**

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) ALL DIMENSIONS ARE IN INCHES
- 3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
- 6) WELDING TO BE DONE PER DART QSI 004.
- 7) FINISH:  
SEE NOTES ON  
PAGE 2 FOR D2580-041 AND  
PAGE 3 FOR D2580-045
- 8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Diagram illustrating the grinding locations for the D2576-3 step. The diagram shows a cross-section of the step with the following labels:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- GRIND FLUSH
- LOCATION RIDGE ON UNDERSIDE OF D2576

RELEASED  
07-06-28

RMV 6/11.06.30

Technical drawing of a circular component with a central hole and a rectangular slot. The drawing includes dimension lines and labels for various parts and dimensions:

- DRILL PRIOR TO D2855 CAP INSTALLATION (2 PLACES)**: Points to the central hole.
- SEAL WITH SIKAFLEX-241/-291**: Points to the outer edge of the component.
- AN3-5A BOLT (1)**: Points to the bolt passing through the central hole.
- AN960JD10L WASHER (1) (2 PLACES)**: Points to the washer on the bolt.
- D2855 CAP**: Points to the cap on the bolt.
- 0.40**: Dimension line indicating the width of the rectangular slot.

Diagram illustrating the components of a wheel assembly:

- D2579 SPACER
- D2596 WEB (REF)
- ALS7-1032-130 (REF) (TYP 50 PLACES)
- AFTER PERFORM
- 1. CH
- 2. INS
- 3. WE
- 4. C'B

AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR #0.508 HOLES ONLY:

1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO  $\phi 0.437$  X 1.00 DEEP

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

Diagram showing the elevation view of the bridge deck. Key dimensions and labels include:

- Overall width: 37.50
- Distance to aft end of D2596 web: 37.50
- Reinforcement bars: #0.508 (TYP.) (40 PLACES)
- Reference to Detail A: REFER TO DETAIL A
- Deck width: 38.0
- Centerline offset: 190.0 (D2500-1)
- Deck thickness: 8.188
- Reinforcement spacing: 8.188 PITCH
- Reinforcement bar spacing: 7 EQUAL SPACES
- Reinforcement bar length: 57.313 (REF)
- Reinforcement bar offset: 17.375
- Reinforcement bar offset: 26.000
- Reinforcement bar offset: 34.188
- Reinforcement bar offset: 91.500
- Reinforcement bar offset: 1.750
- Reinforcement bar offset: 1.750
- Reinforcement bar offset: 8.750

WELD AS PER DETAIL B

BLACK ANTI-SKID TO 0.5 ABOVE LOCATION RIDGE

BLACK ANTI-SKID TOP OF STEP TO 0.5 ABOVE BOTTOM EDGE

0.5

1.5

1.5

D

P P P P P P P

8

1.5

1.5

1.5

REFER TO DETAIL C

D3566-1

D3566-5

D3566-1

D3566-13

D3564-11

D3564-5

D3564-9

D3564-13



AN3C4A BOLT (1)

AN960C10L WASHER (1)

(50 PLACES)

DESIGN	-1	DRAWN BY	
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DESIGN	
CHECKED	
DATE	07.02.27

	DRAWN BY <i>PH</i>
	APPROVED <i>[Signature]</i>

DRAWING NO.	REV. D
D2580	SHEET 2 OF 3
TITLE	SCALE
205 SKIDTUBE ASSEMBLY	1:24

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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**NOTE:** Date & initial all entries

CP 11.06.30  
RMV CP 11.06.30

D2580-1 DRILLING DETAIL

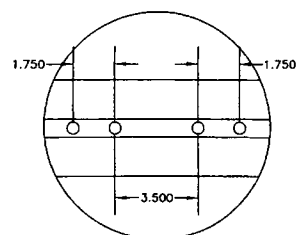
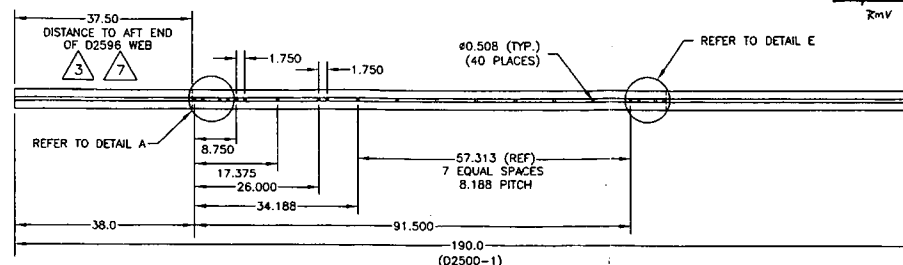


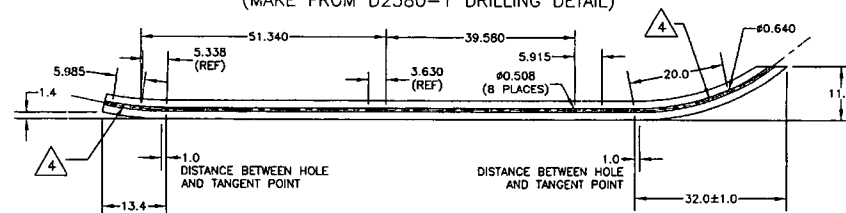
Diagram illustrating the grinding locations for the D2576-3 step. The diagram shows a cross-section of the step with the following labels:

- GRIND FLUSH (4 PLACES)
- GRIND FLUSH
- D2576-3 STEP
- LOCATION RIDGE ON UNDERSIDE OF D2576

RELEASED  
07-06-28



**D2580-5 BENDING AND CUTTING DETAIL**  
(MAKE FROM D2580-1 DRILLING DETAIL)



**D2580-045 ASSEMBLY DETAIL**

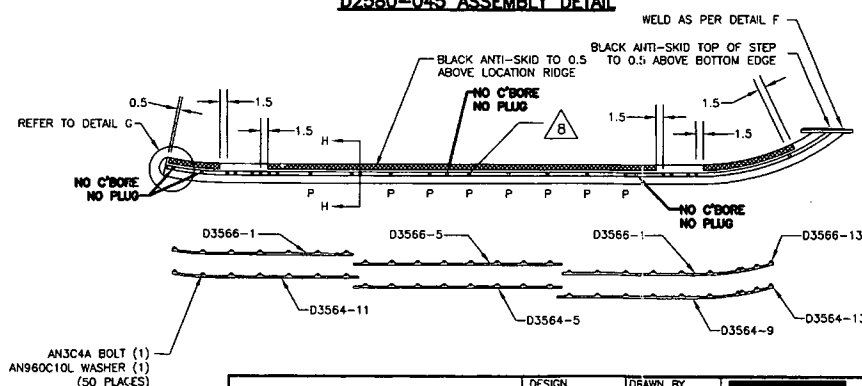


Diagram of a circular web assembly. Labels include: D2579 SPACER, D2596 WEB (REF), and ALS7-1032-130 (REF) (TYP 50 PLACES). A list of steps is provided: 1. CHAMFER HOLE 0.050 X 45°, 2. INSERT D2579 SPACER (20 PLACES), 3. WELD INTO PLACE AND GRIND FLUSH, 4. C/BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP.

**D2580-045 NOTES**

- i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB  
POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4
- ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE  
WITH THE SPACER AT THIS LOCATION

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DATE  
07.02.27

**DRAWN BY**

APPROVED

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**DART**

**DART AEROSPACE LTD.**  
HAMMERSBURY, ONTARIO, CANADA

DRAWING NO.  
D2580

TITLE	205 SKIDTUBE ASSEMBLY
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REV. 0  
SHEET 3 OF 3

SCALE  
1:24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Linda Lacelle

**From:** dshepherd@dartaero.com  
**Sent:** April 18, 2011 11:36 AM  
**To:** Linda Lacelle; Mike Petsche  
**Cc:** Bill Beckett; 'Chris Provencal'; 'Eric Charbonneau'  
**Subject:** Re: Alum. Solution Anneal - swaging

Makes sense to me ... We don't want to get caught short ... Make sure that if we do this, they are ident. the old CHG number.

David

Sent from my BlackBerry device on the Rogers Wireless Network

**From:** "Linda Lacelle" <llacelle@dartaero.com>  
**Date:** Mon, 18 Apr 2011 11:21:10 -0400  
**To:** 'Mike Petsche' <mpetsche@dartaero.com>; <dshepherd@dartaero.com>  
**Cc:** 'Bill Beckett' <bbeckett@dartaero.com>; 'Chris Provencal' <cprovencal@dartaero.com>; 'Eric Charbonneau' <echarbonneau@dartaero.com>  
**Subject:** RE: Alum. Solution Anneal - swaging

I am ready to weld some up, I don't want to get into trouble with L/T's on these, any objections??  
LL

**From:** Mike Petsche [mailto:mpetsche@dartaero.com]  
**Sent:** April 18, 2011 10:42 AM  
**To:** 'Linda Lacelle'; dshepherd@dartaero.com  
**Cc:** 'Bill Beckett'; 'Chris Provencal'; 'Eric Charbonneau'  
**Subject:** RE: Alum. Solution Anneal - swaging

Well I'm not sure what to say.

It is my understanding that the swaging will still make sense even with the extra hoops we need to jump through if there is still uncertainty on the delivery of the material, we CAN still weld them if we need to.

And while this might be less than "world class", couldn't we take some of our tubing that we have in stock and with the welder to knock down the temper a little? Ground clamp on one end, torch on the other.....BZZZZZZ?

(I'm only sort of joking....because I bet it would work)

**From:** Linda Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** April 18, 2011 9:44 AM  
**To:** dshepherd@dartaero.com; 'Mike Petsche'  
**Cc:** Bill Beckett; Chris Provencal; Eric Charbonneau  
**Subject:** RE: Alum. Solution Anneal - swaging  
**Importance:** High

NO. 258

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliot  
Job number: B69986  
Part number: 205-634-041  
Description: 205  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminum  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Art, Evers Date of Test Coupon 11.06.24  
Welder Barclay Elliot Date of Test Coupon 11/06/24

The above named individual is qualified in accordance with AWS D17.1.2001 to weld



W/O:		WORK ORDER CHANGES					
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Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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